3.4.7 System Enhancement Request Scenario

3.4.7.1 Scenario Description

This scenario addresses the processing of a request for system enhancement proposed by a science user. It details the actions associated with registering, assessing, and recording status of proposed changes to ECS resources.

3.4.7.2 Frequency

This scenario will run once a week for review of system enhancement requests received via the User Requirements Database (URDB).

3.4.7.3 Assumptions

1. The URDB will serve as the tool for receiving ECS enhancement recommendations and tracking their disposition. Science users will query the URDB periodically for the status of submitted recommendations.
2. Science users will have the capability to enter enhancement proposals into the URDB and can query the URDB for the disposition of their proposals.
3. There will be an ECS screening committee at the SMC's location that will review all enhancement proposals, make an initial assessment of each proposal, and prepare a configuration change request (CCR) for each proposal that has merit and requires a configuration change for implementation.
4. Key players (ECS screening committee, site sustaining engineer, CM administrator, sustaining engineering organization (SEO) staff member) will have access to the Change Request Manager application, the Distributed Defect Tracking System (DDTS). The CM administrator will have overall responsibility for the DDTS database.
5. DDTS will be set up to provide E-mail notification to the CCR submitter and other personnel whenever the CCR is modified.
6. Responsibilities of key players (Ref: Maintenance and Operations Configuration Management Plan for the ECS Project, dated Sept. 95, Preliminary, 102-CD-002-001):
    - Site Sustaining Engineer—assesses impact of proposed system-wide changes on the DAAC.
    - Site CCB—reviews and approves requested site's impact assessment and the forwarding of the assessment to the SEO.
    - SMC CM Administrator—facilitates the configuration change request process. Monitor and report status of proposed and approved CM actions.
    - SEO Staff Member—assesses feasibility, cost, schedule, and performance impacts of proposed system-wide changes; and presents assessment to the ESDIS CCB.

7. The pictures of the screens shown are samples of the software used and do not reflect the final layout.

3.4.7.4 Components.

Figure 3.4.7.4-1 indicates the interaction between the DAAC personnel and the ECS subsystems.

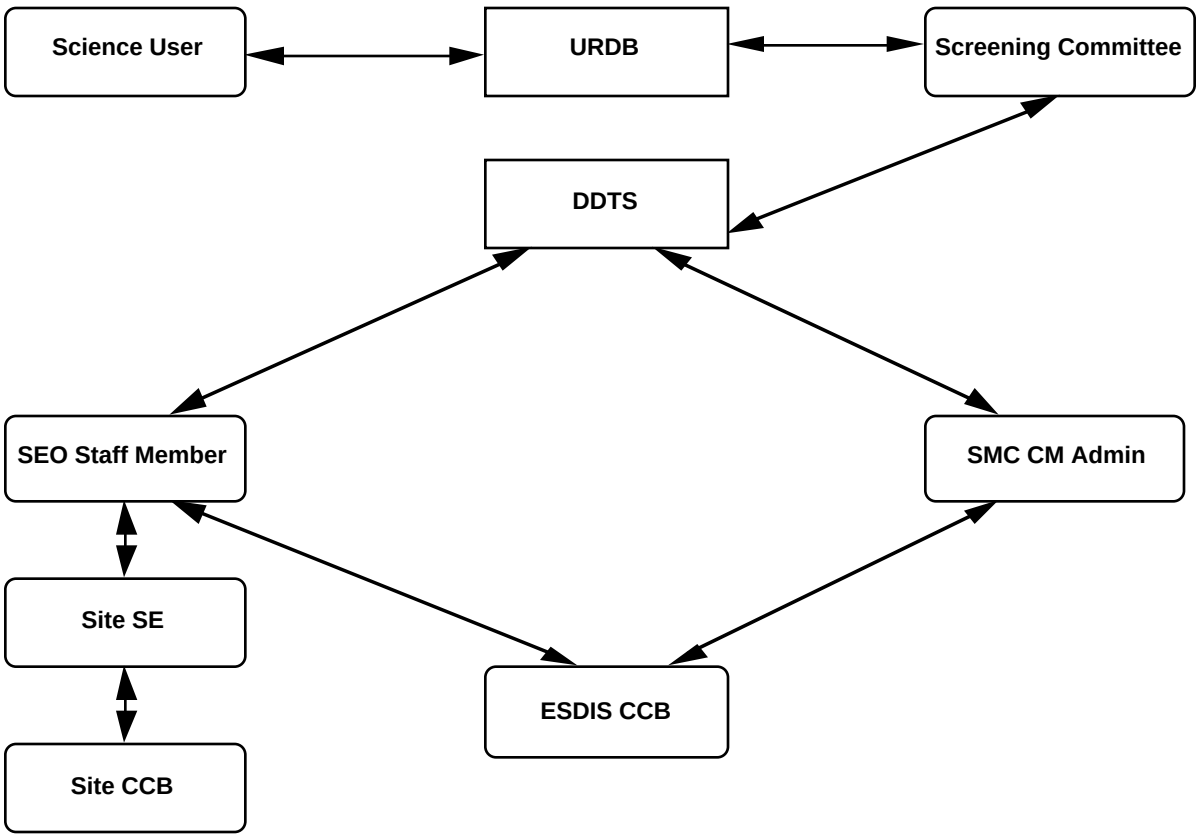

Figure 3.4.7.4-1. System Enhancement Request Scenario Components

3.4.7.5 Preconditions

1. DDTS is installed on each site's (SMC, DAACs, EOC) network. DDTS is compatible with site printers.
2. E-mail facility links all sites.

3.4.7.6 Detailed Steps of Process

Table 3.4.7.6-1 represents the details of this scenario. The times and duration given are approximate.

Table 3.4.7.6-1. System Enhancement Request Process (1 of 4)

Step	Time (mins)	User	Operator (User Services Desk, Sustaining Engineer, CM Administrator, SEO staff member)	ECS System	Figure
1	<5	Science user accesses URDB to submit an enhancement recommendation for one of the ECS custom toolkits. User enters his/her name, e-mail address, phone #, agency's name, recommendation title, and the recommendation.		URDB displays input screen, stores the information and provides an ID number for future reference to this recommendation.	
2	<2		Screening Committee accesses URDB, reviews the enhancement recommendation, determines that the recommendation has merit, has system-wide impact, and should be submitted via a configuration change request (CCR) to ESDIS CCB for approval. Screening Committee member (SCM) changes status of recommendation to reflect its consideration for implementation.	URDB displays the enhancement recommendation. URDB stores the status update.	

3	<5		SCM executes DDTS to compose the CCR. SCM clicks the "Submit" button to bring up the CCR input screen. SCM enters the class and project name for the CCR. SCM enters the name of the toolkit, version number, descriptive title for the CCR, recommended priority, recommendation (includes reference to the URDB ID number) on the form and then clicks the "Commit" button.	DDTS displays its main display page. DDTS displays an initial input screen. DDTS accepts the input and displays the CCR form. DDTS stores the CCR information in its database, sets an initial state (new), and sends e-mail notification of its existence to the SMC CM Administrator and the SEO.	3.4.7.6-1 3.4.7.6-2 3.4.7.6-3a 3.4.7.6-3b

Step	Time (mins)	User	Operator (User Services Desk, Sustaining Engineer, CM Administrator, SEO staff member)	ECS System	Figure
4	<3		SEO staff member (SM) receives e-mail notification, accesses DDTS, reviews the CCR, prints it to a designated file and executes e-mail to mail a copy of the CCR to each site's SE for impact assessment.	DDTS displays CCR and prints a copy of the CCR to a designated file. E-mail facility transmits request for assessment with attached CCR file to each site.	3.4.7.6-4 3.4.7.6-5
5			Site SE receives and assesses CCR, forwards assessment (contains information such as the purpose of the assessment, name of requesting agency, impact to site resources, benefits to site, recommendation, and a copy of the CCR) to site CM Admin. Site CM Admin. provides assessment to site CCB for review and approval. Site CCB review and approves assessment. Site SE e-mails site assessment to the SEO.	E-mail facility transmits assessment to SEO.	
6			SEO SM receives sites assessments via e-mail. Reviews assessments, develops a summary and a recommendation.		

Step	Time (mins)	User	Operator (User Services Desk, Sustaining Engineer, CM Administrator, SEO staff member)	ECS System	Figure
7	< 25		SEO SM accesses DDTS, selects the appropriate CCR in the index and then clicks "Modify" button and then selects the "Add Enclosure" option. SEO SM enters a summary of the impact assessments, cost estimates, and recommendation, executes the editor's File Menu's save option and enters an enclosure title. SEO SM uses the "Add Enclosure" feature to insert each of the sites' assessment file into an enclosure and names each site's assessment enclosure accordingly.	DDTS displays CCR. DDTS initiates its text editor. DDTS saves the information under the entered enclosure title. DDTS saves the content of each file under the entered enclosure title. DDTS sends e-mail notification of the update to the CCR originator, the URDB SCM.	3.4.7.6-4
8	< 1		To get a hard copy of the CCR for the ESDIS CCB's review, SEO SM selects “File” menu then selects “print” option. SEO SM sends a hard copy of CCR to ESDIS CCB for review and approval.	DDTS prints the CCR's information.	3.4.7.6-4
9			ESDIS CCB reviews and approves CCR and issues implementation instructions.		

Step	Time (mins)	User	Operator (User Services Desk, Sustaining Engineer, CM Administrator, SEO staff member)	ECS System	Figure
10	< 5		SMC CM Admin. accesses DDTS to record ESDIS CCB's approval. SMC CM Admin. selects appropriate CCR and then clicks "Modify" menu. SMC CM Admin. selects 'Modify Record' option. SMC CM Admin. enters disposition (approved), implementing organization, and priority. Then clicks the "Commit" button.	DDTS displays its main display page. DDTS displays the "Modify" menu. DDTS stores the information in its database and notifies (via e-mail) the SEO SM and the CCR originator, URDB SCM of the update.	3.4.7.6-4
11	<2		URDB SCM accesses URDB and updates recommendation record to reflect ESDIS CCB's decision.	URDB stores the information.	

3.4.7.7 Postconditions

1. CCR record is stored in the DDTS database and contains a description, impact summary, and its disposition by the ESDIS CCB.
2. URDB record reflects recommendation and its current status.

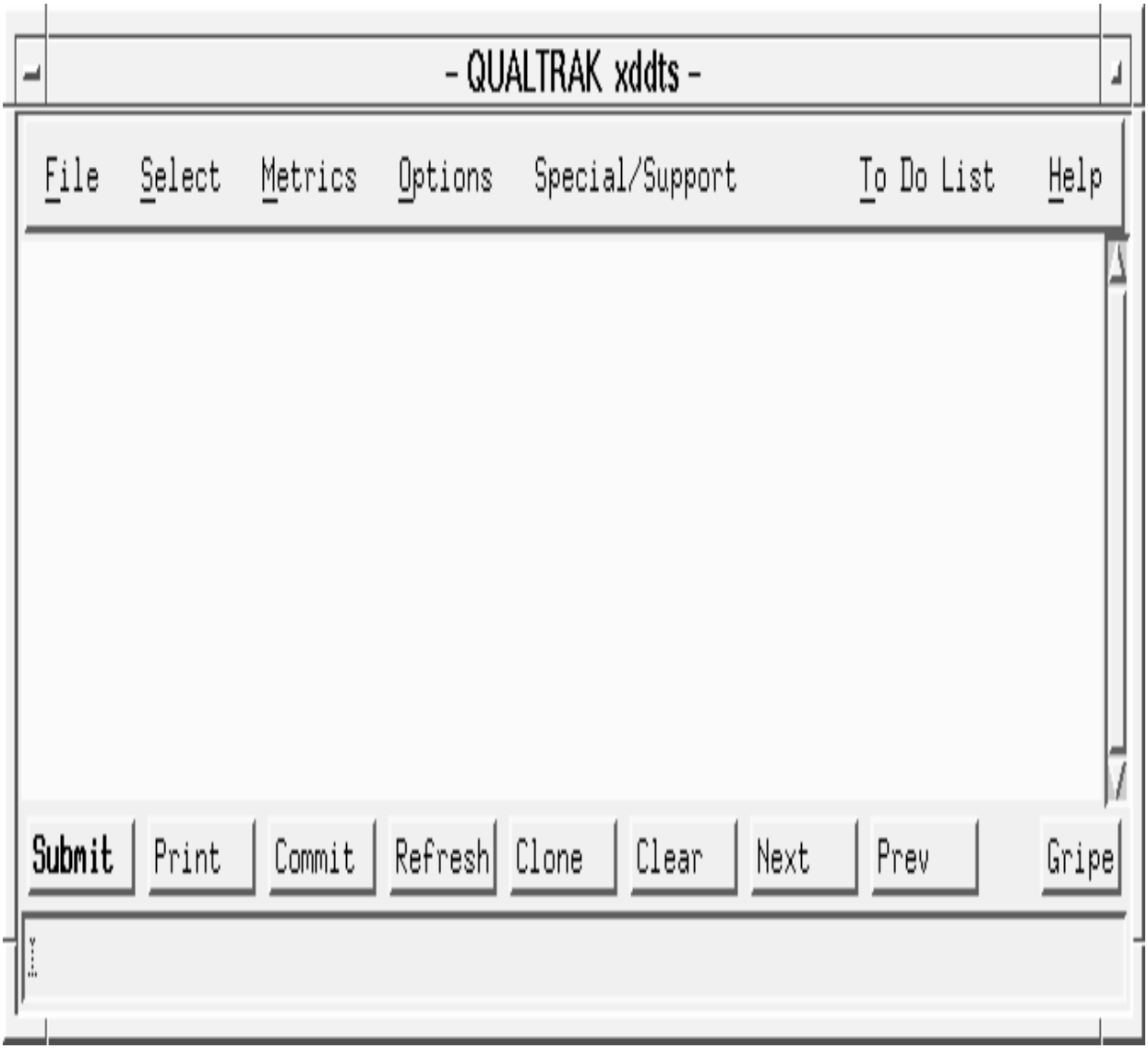

Figure 3.4.7.6-1. DDTS Main Display

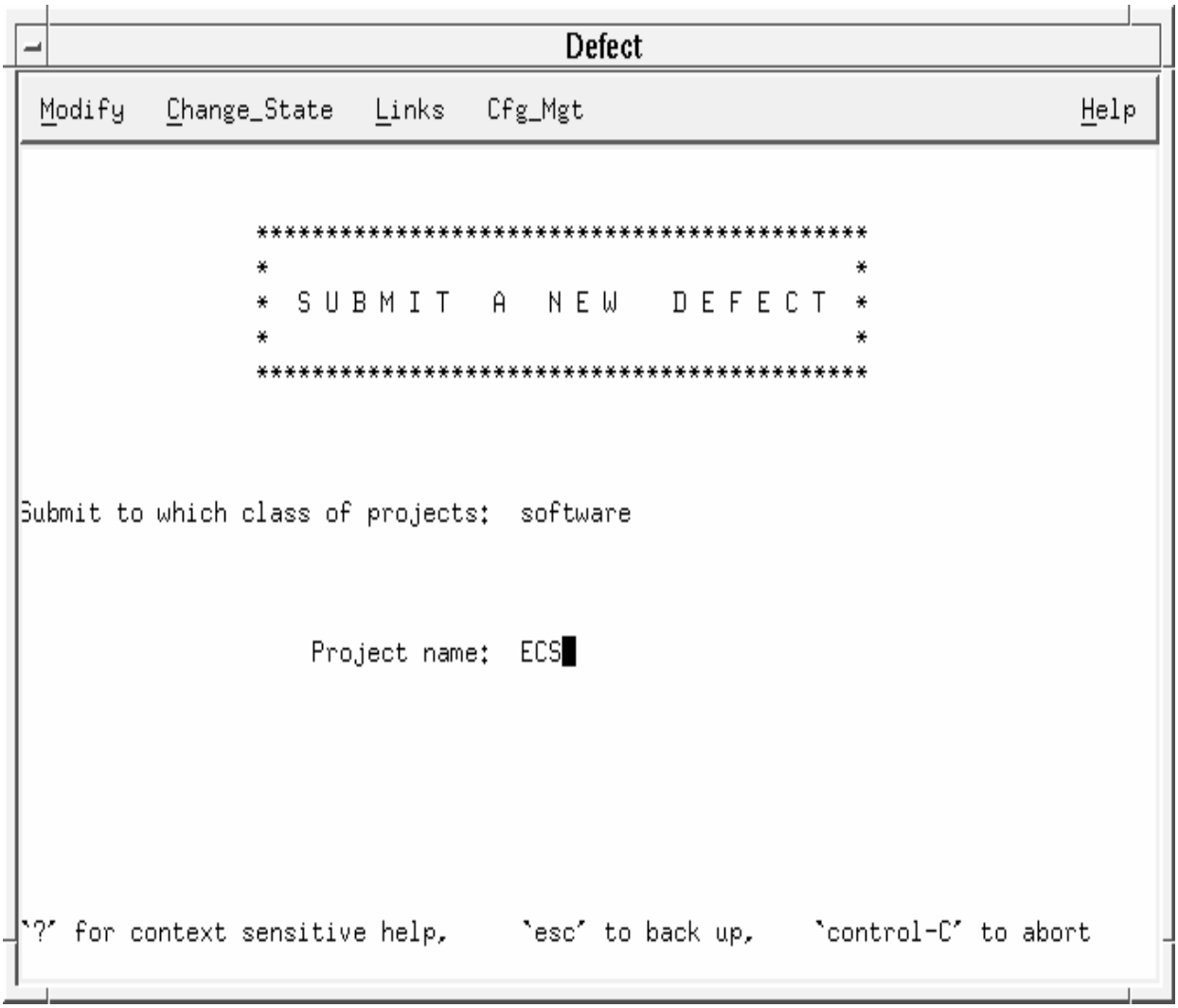

Figure 3.4.7.6-2. DDTS New Request Submission Screen

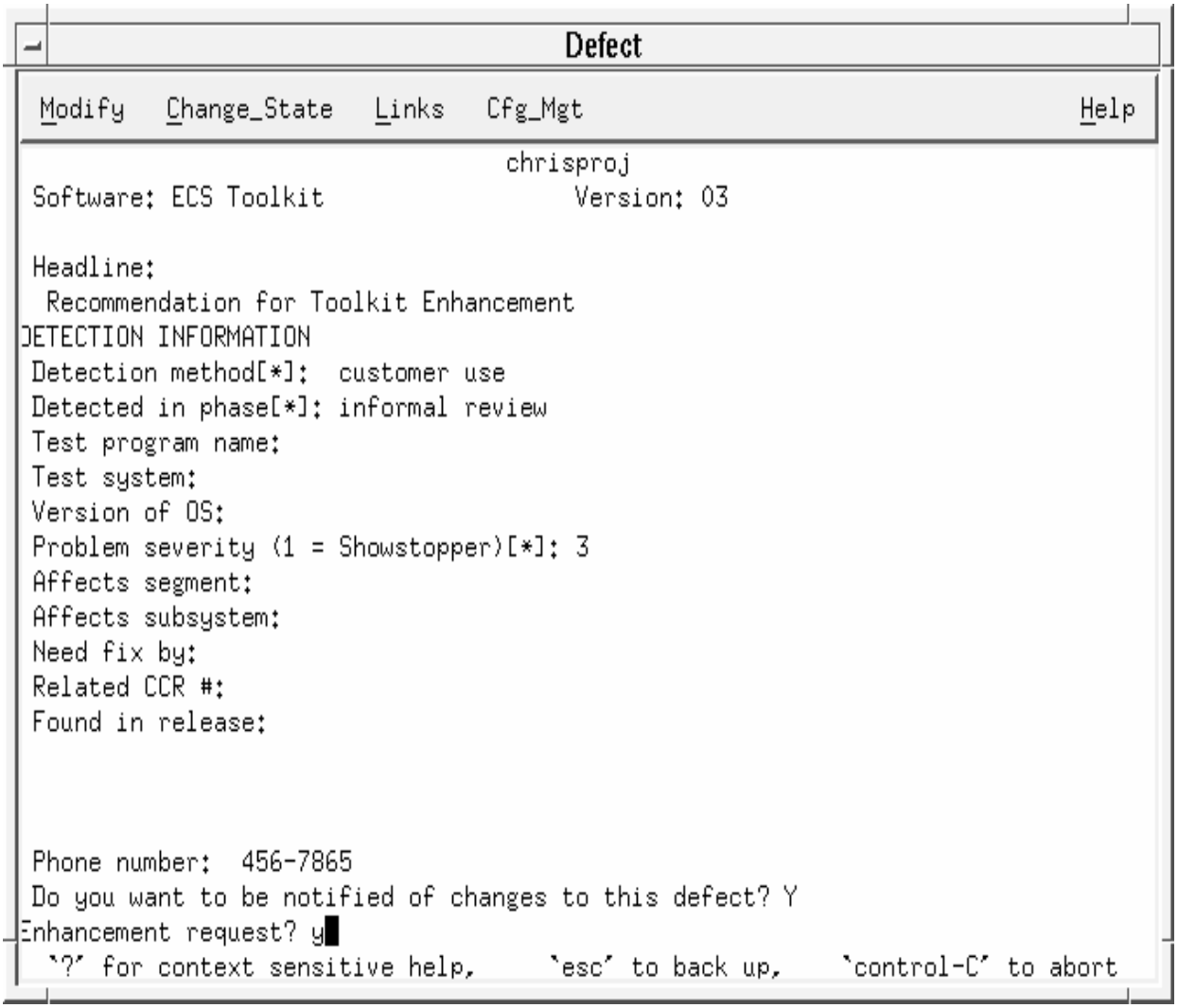

Figure 3.4.7.6-3a. DDTS New Request Form

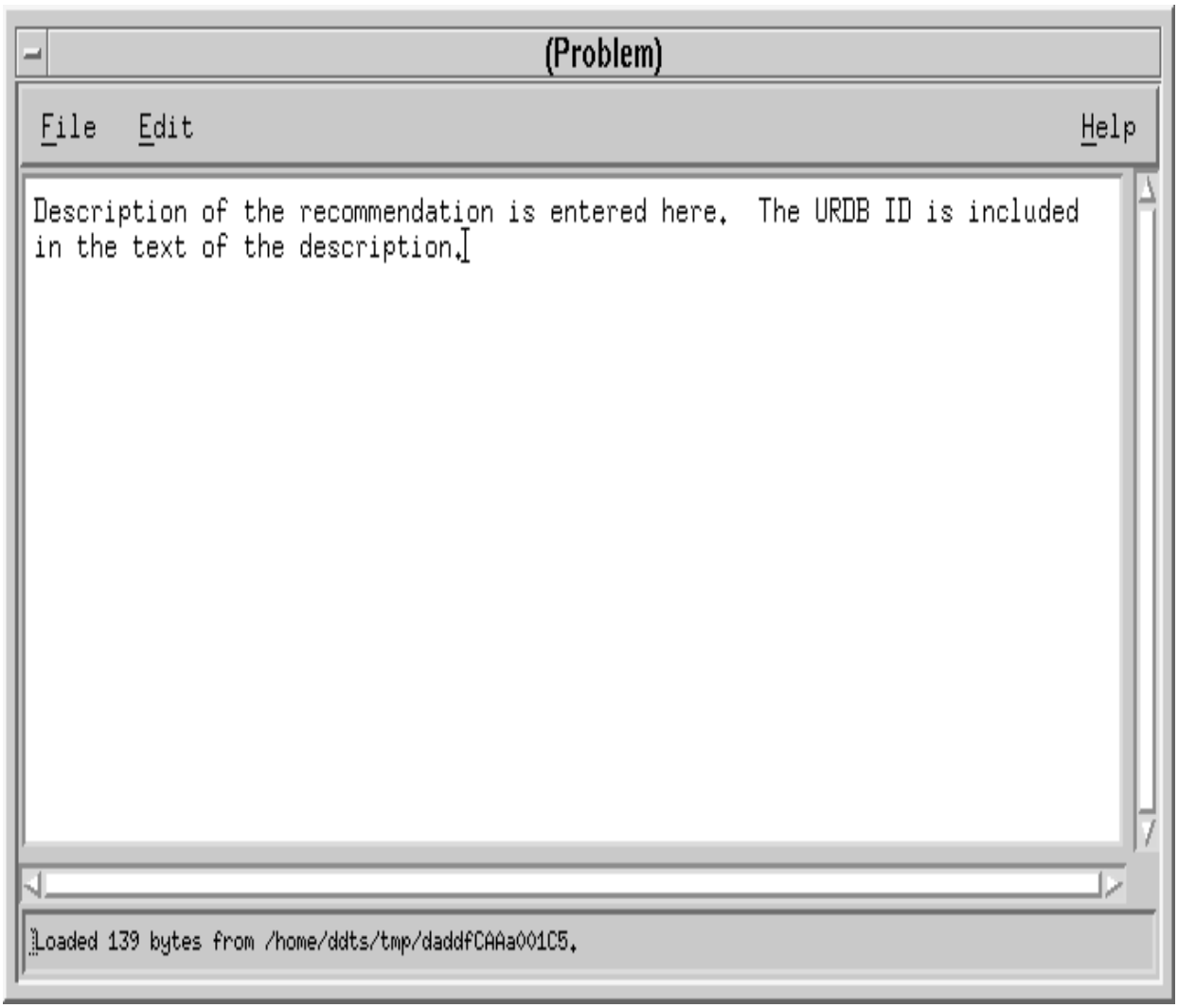

Figure 3.4.7.6-3b. Continuation of New Request Form

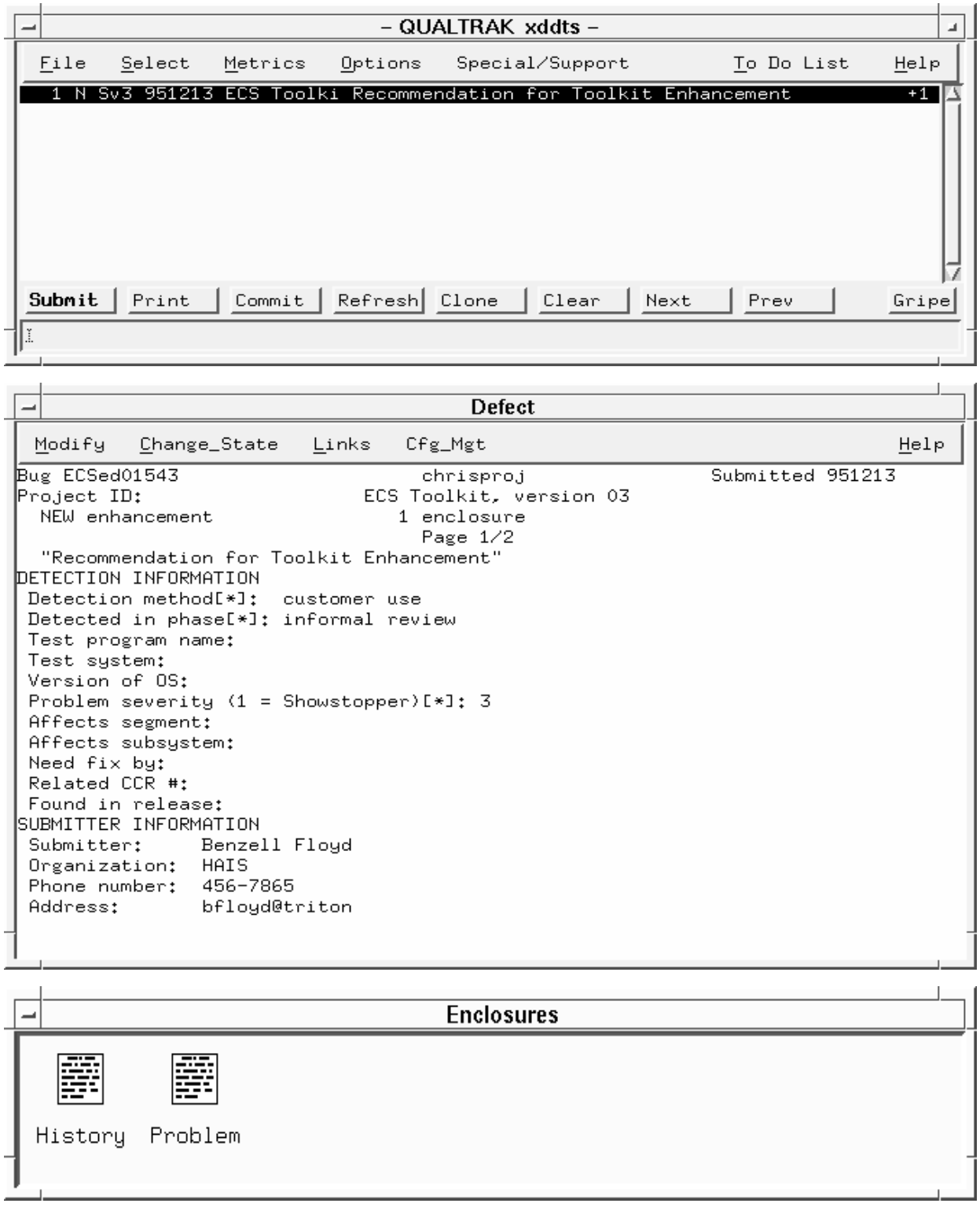

Figure 3.4.7.6-4. DDTS Record

Figure 3.4.7.6-5. DDTS Print Options